

**Section 1 - Identification**

Product Name: BD-50 (18590)

Aqua Engineers  
6955 Oak Ridge Pkwy, Ste 107  
Austell, GA 30168  
770-944-0077

**Emergency Phone: 1-800-535-5053**

Product Use: Designed to be used as a general purpose cleaner and degreaser

**Section 2 - Hazards Identification****GHS Ratings:**

Flammable liquid	4	Flash point $\geq 60^{\circ}\text{C}$ ( $140^{\circ}\text{F}$ ) and $\leq 93^{\circ}\text{C}$ ( $200^{\circ}\text{F}$ )
Skin corrosive	1A	Destruction of dermal tissue: Exposure < 3 min. Observation < 1 hour, visible necrosis in at least one animal
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity $\geq 3$ , Iritis > 1.5
Organ toxin single exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies, Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidan
Organ toxin repeated exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidanc
Health hazard not otherwise classified	MeOH	

**GHS Hazards**

H227	Combustible liquid
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure

**GHS Precautions**

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P235	Keep cool
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves/protective clothing/eye protection/face protection
P310	Immediately call a POISON CENTER or doctor/physician if you feel unwell after exposure of this product
P314	Get Medical advice/attention if you feel unwell
P321	Specific treatment (see First Aid below or label)
P363	Wash contaminated clothing before reuse
P301+P330+P331	IF SWALLOWED: Call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting

P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician
P370+P378	In case of fire: Use dry chemicals, CO2, water spray or alcohol-resistant foam to extinguish.
P405	Store locked up
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container in conformance with State, Local, and Federal regulations.

**Signal Word: Danger**



### Section 3 - Composition, Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
2-butoxyethanol	111-76-2	5.00% - 10.00%
Benzenesulfonic acid, Mono-C10-16-Alkyl Derivs., Sodium Salts	68081-81-2	1.00% - 5.00%
Water Glass	1344-09-3	1.00% - 5.00%
Xylenesulfonic acid sodium salt	1300-72-7	1.00% - 5.00%
Triphosphoric acid, sodium salt (1:5)	7758-29-4	1.00% - 5.00%
Sodium Hydroxide	1310-73-2	1.00% - 5.00%

### Section 4 - First Aid Measures

**INHALATION:** If inhalation of mists, vapors, or spray occurs and adverse effects result, remove to uncontaminated area. Evaluate ABC's (is Airway constricted, is Breathing occurring, and is blood Circulating) and treat symptomatically. GET MEDICAL ATTENTION IMMEDIATELY. There is no specific antidote, treat symptomatically.

**EYE CONTACT:** Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present and easy to do. Continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY. Washing eyes within several seconds is essential to achieve maximum effectiveness.

**SKIN CONTACT:** Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

**INGESTION:** If swallowed, do not induce vomiting. For definite or probable ingestion, do not administer oral fluids. If vomiting occurs spontaneously, keep airway clear. Monitor airway. Volume resuscitation (IV fluids) and circulatory support (CPR) may be required. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.

**Notes to Physician:** Medical observation and assessment is recommended for all ingestions, all eye exposures,

and symptomatic inhalation and dermal exposures. For symptomatic ingestion, do not administer oral fluids and consider investigation by endoscopy, X-ray, or CT scan. Esophageal perforation, airway compromise, hypotension, and shock are possible. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation. Surgical intervention may be required.

## Section 5 - Fire Fighting Measures

Flash Point: 67 C (153 F)

LEL:

UEL: 11.00

**Fire Hazard:** Negligible fire hazard.

**Flash point:** Not flammable

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire.

**Sensitivity to Mechanical Impact:** Not sensitive. **Sensitivity to Static Discharge:** Not sensitive. **GHS:Physical**

**Hazards:** - Corrosive to Metals

Hazardous Decomposition:

Toxic Vapors of Sodium Oxide

**Fire Fighting:** Move container from fire area if it can be done without risk. Cool containers with water. Avoid contact with skin. Do not apply water directly on this product. Heat is generated when mixed with water. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode.

## Section 6 - Accidental Release Measures

**Personal Precautions:** Do not get in eyes, on skin or on clothing. Avoid breathing mist, vapor, or spray. Do not ingest. Wear appropriate personal protective equipment recommended in Section 8 of the SDS.

**Methods and Materials for Containment and Cleaning Up:** In case of spill or leak, stop the leak as soon as possible, if safe to do so. Completely contain spilled materials with dikes, sandbags, etc. Shovel dry material into suitable container. Liquid material may be removed with a vacuum truck. Remaining material may be diluted with water and neutralized with dilute acid, then absorbed and collected. Flush spill area with water, if appropriate.

**Environmental Precautions:** Keep out of water supplies and sewers. Do not flush into surface water or sanitary sewer system. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

## Section 7 - Handling & Storage

**Handling Procedures:** Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not ingest. Do not eat, drink or smoke in areas where this material is used. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. NEVER add water to product. When mixing, slowly add to water to minimize heat generation and spattering.

**Storage Conditions:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see Section 10 of SDS).

## Section 8 - Exposure Controls/Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
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2-butoxyethanol 111-76-2	OSHA Z-1 TWA:240 mg/m3 OSHA Z-1 TWA Absorbed via Skin	TWA 20ppm PE: 50 ppm	Not Established
Benzenesulfonic acid, Mono-C10-16-Alkyl Derivs., Sodium Salts 68081-81-2	Not Established	Not Established	Not Established
Water Glass 1344-09-3	No Occupational Exposure Limit assigned. An exposure limit of 2 mg/m3 (15 min TWA) is recommended by analogy with sodium hydroxide	Not Established	Not Established
Xylenesulfonic acid sodium salt 1300-72-7	Not Established	Not Established	Not Established
Triphosphoric acid, sodium salt (1:5) 7758-29-4	TWA 15mg/m3 total dust TWA 5mg/m3 respirable dust as Particulates not otherwise classified (PNOC)	Not Established	Not Established
Sodium Hydroxide 1310-73-2	2 mg/m3 (PEL)	2 mg/m3 (ceiling)	10 mg/m3 IDLH

**ENGINEERING CONTROLS:**

Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

**Respiratory Protection:** An approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets applicable regulatory requirements must be followed whenever workplace conditions warrant use of a respirator.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Wear chemical safety goggles with a faceshield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.

**Hand Protection:** Wear appropriate chemical resistant gloves

**Protective Material Types:** Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC), Tyvek, Tychem .

**Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

**HYGIENE MEASURES:** Handle in accordance with good industrial hygiene and safety practices. Wash hands and affected skin immediately after handling, before breaks, and at the end of the workday . When using do not eat or drink. When using do not smoke.

**Section 9 - Physical & Chemical Properties**

<b>Boiling Range</b> 100 to 1390 °C <b>Color</b> Blue	<b>Appearance</b> Clear Liquid <b>pH</b> 12.8-13.8
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## Section 10 - Stability & Reactivity

**Reactivity/ Stability:** Stable at normal temperatures and pressures.

**Conditions to Avoid:** Mixing with acid, or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

STABLE

**Incompatibilities:**

Strong Oxidizing agents, Strong Acids

None Known

Acids and halogenated compounds. Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc, or other alkali sensitive metals or alloys. Releases heat when diluted in water.

Aqueous solutions will react with aluminium, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.

**Hazardous Decomposition:**

Toxic Vapors of Sodium Oxide

Oxides of Sodium, Oxides of Phosphorus

This product may yield sulfur dioxide and oxides of sulfur.

**Hazardous Decomposition Products:** Toxic fumes of sodium oxides

**Hazardous Polymerization:** Will not occur

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Ketones. Organic acids.

None Known

Hazardous polymerization will occur.

## Section 11 - Toxicological Information

**Mixture Toxicity**

**Component Toxicity**

111-76-2	2-butoxyethanol Oral LD50: 1,300 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rat)
1344-09-3	Water Glass Oral LD50: 3,400 mg/kg (RAT) Dermal LD50: 5,000 mg/kg (RABBIT)
1300-72-7	Xylenesulfonic acid sodium salt Dermal LD50: 2,100 mg/kg (Rabbit)
7758-29-4	Triphosphoric acid, sodium salt (1:5) Oral LD50: 3,120 mg/kg (Rat) Dermal LD50: 4,640 mg/kg (Rabbit)

**ACUTE TOXICITY:**

The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact. Inhalation will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. Skin contact with this material may cause severe irritation and corrosion of tissue. Repeated exposure may cause dermatitis. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

**CARCINOGENICITY:** This product is not classified as a carcinogen by NTP, IARC or OSHA.

CAS Number

Description

% Weight

Carcinogen Rating

## Section 12 - Ecological Information

### ECOTOXICITY DATA:

**Aquatic Toxicity:** This material has exhibited moderate toxicity to aquatic organisms. Data provided are for sodium hydroxide.

### Fish Toxicity:

LC50 Brook trout: 25 ppm/ 24 hr

LC50 King salmon: 48 ppm

### Invertebrate Toxicity:

LC50 Daphnia magna: 100 ppm

LC50 Shrimp: 33 - 100 ppm/48 hr

LC50 Cockle: 330 - 1000 ppm/48 hr

### FATE AND TRANSPORT:

**BIODEGRADATION:** No information available

**PERSISTENCE:** Soluble in water, persistence is unlikely based on information available .

**BIOCONCENTRATION:** This material is not expected to bioconcentrate in organisms.

**ADDITIONAL ECOLOGICAL INFORMATION:** This material has exhibited slight toxicity to terrestrial organisms.

### Component Ecotoxicity

## Section 13 - Disposal Considerations

**Waste from material:** Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations: U.S. EPA 40 CFR 261. Hazardous Waste Number(s): D002.

## Section 14 - Transportation Information

Agency

Proper Shipping Name

UN Number

Packing Group

Hazard Class

DOT

Compound, Cleaning, Liquid, (Not Regulated)

## Section 15 - Regulatory Information

Country

Regulation

All Components Listed

- None

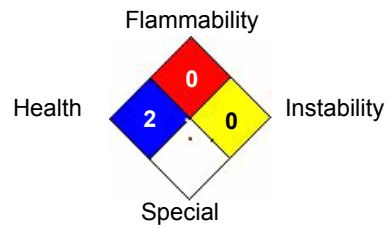
## Section 16 - Other Information

Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	D

**HMIS & NFPA Hazard Rating**  
**Legend**  
 \* = Chronic Health Hazard  
 0 = INSIGNIFICANT  
 1 = SLIGHT  
 2 = MODERATE  
 3 = HIGH



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Reviewer Revision

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